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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,993	08/29/2006	Daniel Allen Smith	3638-891 (AMK)	4226
23117 7590 01/29/2010 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
EXAMINER				
ADAMS, GREGORY W				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/590,993

Applicant(s)

SMITH ET AL.

Examiner

GREGORY W. ADAMS

Art Unit

3652

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 2 and 14-18 is/are allowed.
- 6) ☒ Claim(s) 19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Specification

The amendment filed Nov. 16, 2009 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: Primary and second radio transmitters that have "complete control of the attachment". Claim 19, line 14. Para. [0039] of Applicants specification notes that each transmitter includes seven toggle switches (the five degrees of freedom), a proportional trigger (selected function) and an emergency stop (shuts down movement). Figure 7 shows components which are not defined as under the control of the including generator 60, transformer 61, radio receiver 52, proximity sensors 50a, 50b, vacuum switch 51, hydraulic block 53, vacuum pump 26. These are controlled by the logic controller (PLC). Para. [0040], line 3. Thus, Applicants radio transmitters appear to be the sole input to the system but "complete" control is shared with the logic controller.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 19-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Primary and second radio transmitters do not have "complete control of the attachment". Claim 19, line 14. Para. [0039] of Applicants specification notes that each transmitter includes seven toggle switches (the five degrees of freedom), a proportional trigger (selected function) and an emergency stop (shuts down movement). Figure 7 shows components which are not defined as under the control of the including generator 60, transformer 61, radio receiver 52, proximity sensors 50a, 50b, vacuum switch 51, hydraulic block 53, vacuum pump 26. These are controlled by the logic controller (PLC). Para. [0040], line 3. Thus, Applicants radio transmitters appear to be the sole means for a user's input to the system but "complete" control is shared with the logic controller. Moreover, sensors 50a, 50b appear to control functions where "control" is defined as stoppage of movement based on input given to sensors 50a, 50b by approaching articles whereupon logic controller PLC shuts down movement without a user's input.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 19-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation "only one of the primary and secondary radio transmitters has control of the attachment at a time" establishes that one and only one transmitter has control and the other does not have control. However, "each of the primary **and** secondary radio transmitters has complete control" requires

that both be in control at the same time. (Emphasis added.) Thus, the former limitation contradicts the latter. Active merely means in use, e.g. when the apparatus is being used to move articles and control is being passed between primary and secondary transmitters.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohnen (DE 3834311 A1) (previously cited) in view of Ehmke (US 3,598,263) (previously cited), of Rau et al. (US 2004/0052627) (previously cited) and Higgs (US 2003/0036368) (previously cited). Kohnen discloses a method of manipulating a load via an attachment to a telescopic material handler, the method comprising:

- coupling an attachment to a telescopic material handler 14, 15 via a coupling section 16, 16.1;
- holding a load 9 with a gripping system 33; and
- supporting a gripping system with a manipulation assembly connected to a coupling section for movement in at least four degrees of freedom D1, D2, D3, S4 independent from additional degrees of freedom provided by movements of a telescopic material handler via an operator-controlled control system 17,

Ehmke discloses an attachment comprising:

- a coupling section (5, 6, 7) coupleable with a telescopic material handler (e.g. forklift);
- a gripping system 47 that securely holds a load;
- a manipulation assembly supporting a gripping system and connected to a coupling section, a manipulation assembly being movable in at least five degrees of freedom (see below) independent from additional degrees of freedom provided by movements of a telescopic material handler; and
- an operator-controlled control system (FIG. 5) effecting control of a manipulation assembly, an attachment further comprising control indicators providing a visual indication of which radio transmitter is in control of the load.

Applicant defines a degree of freedom as requiring an axis. Para. [0010] Ehmke discloses at least five axes which are in/out activation of cylinders 27-29 (C2/L57), side-to-side activation of cylinder 21-23 (C2/L50-56), cup vertical movement through

independent activation of cylinders 27-29 (FIG. 2; C2/L66-72), rotation about vertical axis (FIG. 4; C2/L20-21), rotation about horizontal axis (FIG. 3: C3/L21), and rotation about axes indicated generally as 30 (FIG.2). Thus, Ehmke's seven axes define seven degrees of freedom. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Kohnen to swap Kohnen's four degrees of freedom manipulation assembly with Ehmke's at least five-degrees of freedom manipulation assembly because of "because of the low tolerance of large plate glass to impacts and bending." C1.

Rau et al. teaches primary and secondary radio transmitters are well known for controlling material handlers. Specifically, Rau discloses a five degree-of-freedom attachment having an operator-controlled control system 50 effecting control of a manipulation assembly wherein an operator-controlled control system comprises a primary radio transmitter 60 and a secondary radio transmitter 62, and an attachment further comprising control indicators, e.g. motion of various components, providing visual indication of which radio transmitter is in control of a load. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the operator-controlled control system of Kohnen to include primary and second remote controls, as per the teachings of Rau et al., such that in attachments with multiple degrees of freedom where "must maintain control over not only the axes but also the hose end, in order to avoid the risk of uncontrolled movement of the hose end and therewith an endangerment of the construction site personnel" (para. [0003]) correction routines facilitated by dual remote controls of multiple articulation motors

allows for error correction of boom mast and improved attachment positioning. Paras. [0007-0009]).

And, where there is a predictable result of combining primary and second transmitters to method of material handlers Higgs discloses an operator-controlled control system effecting control of an assembly wherein an operator-controlled control system comprises a primary radio transmitter 4 and a secondary radio transmitter 6, and wherein control of a load is transferable between a primary 4 and secondary 6 radio transmitters such that only one of a primary and secondary radio transmitters has control of a load at a time (paras. [0023-0024]), an attachment further comprising control indicators providing a visual indication of which radio transmitter is in control of a load.

Response to Arguments

Applicant's arguments filed Nov. 16, 2009 have been fully considered but they are not persuasive.

Response to arguments directed to Ehmke: No arguments were presented.

To Rau: Rau was cited as noted that primary and secondary transmitters are well known in the material handling art. Rau was not cited as providing "complete" or less than complete control over the material handler. Rau's motivation for adding primary and second controllers to a material handler is to avoid "uncontrolled movement". Thus, combination of Kohnen in view of Rau is proper.

To Higgs: Applicant argues that Higgs does not disclose transferring control such that one of the primary and second radio transmitters has complete control because

Higgs does not disclose "pitch-catch" and that Higgs controllers work together. The examiner does not agree with Applicants interpretation. Initially, it is noted that the features upon which applicant relies (i.e., "pitch-catch") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). 112, second paragraph rejection notwithstanding Higgs discloses "it is desirable for each transmitter to selectively assume **exclusive** control of the control functions of the locomotive." (Emphasis added.) Para. [0006], lines 4-8. Thus, control functions are completely controlled by a primary or a second transmitter while an other transmitter cannot. Both remain active relative to the safety functions but are selectively inactive relative to the control functions. As noted above, a skilled artisan will have visual confirmation of which controller has control when functions entered from a respective radio transmitter causes a response by a locomotive, i.e. locomotive movement is visually observed. Thus, the combination of Kohnen in view of Higgs is proper.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GREGORY W. ADAMS whose telephone number is (571)272-8101. The examiner can normally be reached on M-Th, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on (571) 272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit: 3652

/Gregory W Adams/

Primary Examiner, Art Unit 3652